EC-2
980457

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8
999 18TH STREET - SUITE 500
DENVER, CO 80202-2466

MAR 15 1999

Ref: 8EPR-EP

A. J. Meredith, Monument Manager
Grand Staircase-Escalante National Monument
337 South Main Street, Suite 010
Cedar City, Utah 84720

RE: Comments by EPA on the Grand Staircase-Escalante National Monument Draft Management Plan and Draft Environmental Impact Statement (DEIS), Kane and Garfield Counties, Utah. Rating EC-2

Dear Mr. Meredith:

Thank you for the opportunity to comment on the proposed Management Plan for the Grand Staircase-Escalante National Monument. EPA offers the following comments for your consideration. Pursuant to Section 309 of the Clean Air Act and Section 313 of the Clean Water Act, EPA recommends that the Final Environmental Impact Statement (FEIS) and Management Plan be improved, or clarified, to provide more information on environmental baseline conditions, to completely define the use of scientific review in Monument management, and to further document the impacts of several of the proposed actions.

Overall we found the Plan to be an excellent foundation for preserving and restoring land within the Monument. EPA's comments focus on some improvements to help ensure achievement of the goals of the Presidential Proclamation establishing the Grand Staircase-Escalante National Monument. The proclamation cites the unique array of natural resources, and further describes the area in terms such as:

"... this unspoiled natural area..."

"... worthy of preservation..."

"... to preserve intact..."

"...low resistance to, and slow recovery from, disturbance."

We believe the Management Plan should have these elements of the Proclamation integrated into the overall purpose and need for developing the Plan.

We are recommending that the Monument Management Plan establish a process of adaptive management using independent science review linking management of the Monument with the scientific community most familiar with preserving these unique resources. These resources warrant a well defined approach to land management. See our attached detailed comments for an explanation of possible adaptive management strategies that BLM could implement.

EPA acknowledges the severe time constraints that BLM faces in preparing the Monument Plan and supporting NEPA documentation. However, we believe that there is substantial relevant information on the impacts of Off-Highway Vehicles (OHVs), the fragile nature and critical role of crytobiotic crusts in arid environments, and regional ecological information that BLM could use in strengthening the documentation of OHV uses in the Monument. We would like to provide assistance to the planning team on this issue at a later date.

Attached are additional detailed comments on the proposed Monument Management Plan and DEIS. Based on the procedures used by EPA to rate the environmental consequences of the proposed action and the adequacy of the DEIS, it will be listed in the Federal Register as Category EC-2. This rating means EPA has environmental concerns with the proposed action and that additional information is needed in the FEIS. The attached detailed comments provide further information for your consideration in preparation of the FEIS and Management Plan.

If you have any further questions about these concerns and observations, please contact me at (303) 312-6228 or Weston Wilson at (303) 312-6562 .

Sincerely,

Mike Strieby

for Cynthia Cody, Chief
NEPA Unit

cc: Elaine Suriano, OFA, EPA, Washington, D.C.

EPA REGION VIII COMMENTS
ON THE
DRAFT ENVIRONMENTAL IMPACT STATEMENT
FOR THE GRAND STAIRCASE-ESCALANTE NATIONAL MONUMENT

ADAPTIVE MANAGEMENT

In the proposed Alternative B, vehicles would be restricted to 818 miles of routes designated as open and all alternatives prohibit off-road vehicle travel. Although it is stated that "...impacts would be monitored to determine the extent to which they may prove irreversible; adaptive management would be employed as appropriate..."; insufficient information is provided on several baseline conditions, the monitoring intended, or the range of adaptive management options to either restore damaged ecosystems or protect these resources (See page 4.53). We suggest that BLM further specify the detailed monitoring planning and critical feedback process that will be implemented in order to accomplish the intended adaptive management direction.

The overriding purpose of Monument management is to protect the unique and fragile areas and the many scientific values as noted in the Proclamation. We suggest a specific management process, including scientific input with public review known as adaptive management. This process is necessary to determine if adequate protection is being achieved over the long term. The current practice of BLM in forming a Resource Advisory Council (RAC) is principally to involve those with economic interests such as grazing, mining and recreation. This does not seem appropriate for the purpose of achieving the goals to protect natural and scientific values in the proposed Monument. Although the Draft Environmental Impact Statement (DEIS) briefly notes, as part of the proposed Alternative B, that a Scientific Advisory Board (SAB) could be employed to give advise on the interaction of science, research, and management, little detail is provided on the proposed SAB and its composition and function, especially regarding interaction between this Board and Monument management. The focus seems to be on management of scientific research, not on scientific oversight of the overall management of the Monument.

It is EPA's suggestion that a commitment to a comprehensive Adaptive Management Plan (ADP) in the Final Environmental Impact Statement (FEIS) may outweigh the uncertainty over whether the proposed plan is appropriate or sufficient to protect the scientific values present in the Monument. Adaptive Management is a process to increase the speed at which managers learn from their decisions about the resources and how multiple-use activities affect them. The AMP can have differing levels of effort and costs. The three possibilities styles include active, passive, or reactive.

Adaptive management consists of several basic steps:

- define the natural resource protection objectives and design the management plan to achieve those objectives (i.e. what hypothesis of management is being tested).

- identify the unimpacted and sustainability thresholds (sustainability is defined as

the functionality of these natural areas to maintain ecologically stable conditions within the normal range of variability).

- monitoring of ecosystem response to generate feedback.
- integration of past experience and information.
- inclusion of multiple stakeholders.
- documentation of information and actions to ensure that knowledge is not lost over time.
- the regular adjustment of management practices based on what is learned.

We recommend that BLM pursue one of two options in the Final EIS: either 1) select and announce which option (active, passive, or reactive) it has selected for adaptive management, or 2) outline the various adaptive management options and how it intends to charter the proposed science advisory group. The various strengths and benefits likely from these various adaptive management options should be defined. Then a selection of an adaptive management option should be made and announce in the Record of Decision. Following is a suggested budgetary and organizational process outline for these three adaptive management strategies:

A) "Reactive Management" Plan, the least cost option:

Organizational Arrangements. Establish one intra-agency work group: A technical work group of BLM and cooperating agencies, scientists and natural resource economists.

Process. Provide a small budget and resources needed to monitor selected key ecosystem indicators managed by the intra-agency work group.

Independent Science Review. While not actively seeking independent scientific review of proposed actions or ecosystem responses, proposed plans and actions could be made available to various stakeholders and these stakeholders may on their own terms acquire independent scientific review and provide this information to the intra-agency work group.

Public Access and Review. Provide key documents in draft form to interested stakeholders.

B) "Passive Management" Plan, next mid-level cost option:

Organizational Arrangements. Establish two technical work groups: An intra-agency technical work group of BLM and cooperating agencies, scientists and natural resource economists. An extra-agency work group of independent scientists and natural resource economists.

Process. Make various management documents including monitoring of environmental conditions and proposed resource management plans available for scientific review when developed in a draft stage, and direct the extra-agency scientists work group to independently propose monitoring of unspoiled conditions and means to determine if such conditions remain unspoiled.

Independent Science Review. Seek pro-bono peer review managed by the Natural Resources Committee of the National Academy of Sciences and budget for the contracted grant work of the extra-agency science work group.

Public Access and Review. Provide key documents in draft form to interested stakeholders and hold infrequent public meetings at critical decision points.

C) "Active Management" Plan or the high cost option:

Organizational Arrangements. Establish three technical work groups: An intra-agency technical work group of BLM and cooperating agencies scientists and natural resource economists. An extra-agency work group of independent scientists and natural resource economists. A science center of contracted specialists in the environmental sciences and the natural resource economists.

Process. Make various management documents including monitoring of environmental conditions and proposed resource management plans available for scientific review when developed in a draft stage. Direct the extra-agency scientists' work group to independently propose monitoring of unspoiled conditions and means to determine if such conditions remain unspoiled. Assure the science center staff conducts academically peer-reviewed reports on the effectiveness of Monument management to achieve the non-degradation and restoration objectives.

Independent Science Review. Obtain scientific peer review managed by the Natural Resources Committee of the National Academy of Sciences. Budget/implement for the contracted or grant work of the extra-agency science work group. Budget/implement the contracted and grant work of the permanently established science center.

Public Access and Review. Provide key documents in draft form to interested stakeholders and hold frequent, perhaps quarterly, public meetings to maintain an ongoing interaction with the public in all aspects of Monument management.

TRANSPORTATION AND ACCESS

The DEIS indicates that a key to protecting the Monument's natural resources is the management of potential impacts from the visitor. Of particular concern is a visitor traveling

cross-country which can result in erosion to the fragile crytobiotic soils and possible introduction of non-native plants. Environmental consequences of Off-Highway Vehicle (OHV) use in desert ecosystems is well established. Examples and trends regarding these impacts could be added into the FEIS to document the loss of species diversity potentially associated with soil erosion, non-native seed introduction and other persistent long-term effects of wide spread off-road travel within the Monument. Consider for example the recent research published by Evans and Belnap regarding soil disturbance in the Needles District of Canyonlands National Park. This soils survey established that the possible connection between the loss of the crytobiotic crust and the resultant lack of natural revegetation following disturbance is associated with interruption of the soil nitrogen balance. This leads to less fertile soil conditions that can prevent plant regrowth following surface disturbance. (See "Long-Term Consequences of Disturbance on Nitrogen Dynamics in an Arid Ecosystem, R.D. Evans and J. Belnap, Ecology, 80(1), 1999, pp. 150-160.)

BLM is complimented for its recognition of and intent to prohibit all OHV travel throughout the proposed Monument. OHV access is to be prohibited in each of the action alternatives. However, the DEIS lacks details on achieving this intended management objective. The Proposed Plan Alternative B does not contain any inspection or enforcement measures that will ensure the reduction of vehicle use, or the modification of previous poor vehicular use habits in the Monument. The Monument Plan could define an inspection and enforcement program to ensure that the road closures achieve the expected results. If not, then the modifications to further reduce damage of vehicular travel in the Monument could become an element of the adaptive management program. It might also be critical to further explore the observation that other adjacent areas to the monument might receive more OHV activity and consequent environmental degradation. The Moquith Mountain WSA and the Coral Pink Sand Dune State Park might be of particular focus in this regard.

We recommend that a specific plan for closing the existing routes (and claimed routes) within the primitive zone be specified. What legal impediments are there to closing these roads? What is the priority order for addressing these closures? What staff and other resources are needed to accomplish and implement these closures?

WILDERNESS

The manner of addressing wilderness protection in this Plan needs to be updated to reflect the best available information. The 1980 wilderness inventory prepared by BLM was updated in 1990, and again last year. We understand that the BLM Planning Team now has access to this revised inventory and will consider that information in the subsequent planning process. This is not apparent from the DEIS which treats this as an issue beyond the scope of the Monument EIS.

ENVIRONMENTAL CONSEQUENCES

Chapter four indicates that generalized "impacts" are expected from all activities. However, it is not possible to evaluate the relative importance of many of the impacts on the health of the environment because there is limited baseline information (quantified) to establish the existing ecosystem health and then determine the amount of change expected. As noted above, we suggest that a way of meeting this concern is to make greater use of the available information, to outline the budget, staffing and, process to obtain the necessary baseline ecosystem data for use by an independent science review board integrated with adaptive management.

GRAZING

The DEIS indicates BLM will use a three-step process to prepare allotment management plans (AMPs) within three years of the FEIS. We support this approach as a specific commitment to be accomplished as a result of the Plan. However, are there some immediate steps that could be implemented to reduce the threat to limited, sensitive riparian areas in the Monument? This might include starting the evaluation process on a priority basis to deal with the more critical riparian area problems first, or those allotments in a known downward trend within riparian areas. EPA could assist in this effort to help determine if this coincides with Utah's Clean Water Act 303(d) list. For grazing allotments in degraded range condition, BLM could expedite an Allotment Plan to bring those allotments into compliance with the new standards in some specific priority order. For example, there is a need to determine if there are any human activities, including grazing, that could be exacerbating the current water quality conditions in the Escalante and Paria Rivers. It is likely, as noted in the DEIS that the naturally high levels of erosion of the parent materials high in cadmium, selenium, and phosphorous is the primary source of these water quality conditions. However, establishing whether there is any role that grazing practices might contribute to these conditions could be assessed. Again, the implementation of this three-step process also should be coupled with the necessary staff resources and commitment to accomplish the established goal.

OIL, GAS AND MINING

The essence of the "valid existing rights" (VER) discussion is that oil, gas and mining will be addressed on a case-by-case basis as requests come from the lease holder. First, we recommend that the discussion of oil and gas VER be updated to reflect the approximately 45,000 acres of acquired lands with are encumbered by leases issued by the State of Utah. There is said to be approximately 179,000 acres within the Monument under oil and gas leases. BLM's proposed plan is to analyze Applications for Permit to Drill (APDs) on a case-by-case basis. Although BLM indicates that these existing leases probably include the Standard Lease Terms, the DEIS also alludes to the possibility of supplemental stipulations or conditions of approval (page 2.85). EPA suggests that BLM consider a broader planning effort than a case-by-case analysis. For example, consider that, instead of a piecemeal analysis for each APD, the

Monument Plan specify that a comprehensive analysis of each APD should include an analysis of the geologic structure or target zone for that well. Since there are in excess of 111 leases on lands that were previously a mix of Federal and Utah School and Institutional Trust Land, a possibility for a comprehensive approach could be based on lease location by geologic structure (e.g. Smoky Mountain Anticline). The first APD filed on that structure would trigger a comprehensive (cumulative) effects analysis of all leases on that geologic structure.

CUMULATIVE EFFECTS

The FEIS and Management Plan should establish a specific protocol under the adaptive management for analysis of direct, indirect, and cumulative effects of each surface disturbing activity. Again, it noted in this section of the DEIS that: "As our data base of knowledge improves, adaptive management would be considered to reduce potential cumulative impacts in accordance with law, regulation, and the Final Monument Management Plan." However, there is little detail of any intended adaptive management plans. Selecting the design of the proposed adaptive management plans should be included in the FEIS or the Record of Decision in order to implement the intended feedback loop of monitored cumulative effects into management decisions.

EPA expressed environmental concerns about ~~the~~ potential irreversible adverse impacts of disturbance to the fragile and unique resources within monument, such as the crytobiotic crusts. We recommend that the final EIS include detailed monitoring and feedback mechanisms integrated into a comprehensive adaptive management plan, as well as a goal to conduct a comprehensive effects analysis for the 100 plus leases covering 179, 000 acres open to oil and gas development. The final EIS should include a discussion of valid and existing rights to reflect the status of acquired lands and incorporate the 1990 BLM wilderness survey data.